

CONTACT ASSEMBLIES, METHODS FOR MAKING CONTACT ASSEMBLIES,  
AND MACHINES WITH CONTACT ASSEMBLIES FOR ELECTROCHEMICAL  
PROCESSING OF MICROELECTRONIC WORKPIECES

ABSTRACT OF THE DISCLOSURE

Contact assemblies for electrochemical processing of microelectronic workpieces. The contact assemblies can comprise a support member that includes an inner wall which defines an opening configured to receive the workpiece and a plurality of contacts. The individual contacts include a conductor and a cover. The conductor can comprise a proximal section projecting inwardly into the opening relative to the support member, a distal section extending from the proximal section, and an inert exterior at least at the distal section. The cover comprises a dielectric element that covers at least the proximal section of the conductor, but does not cover at least a portion of the distal section of the core. The exposed portion of the distal section of the core, accordingly, defines a conductive contact site for contacting a conductive layer (e.g., a seed layer) on the workpiece.